



(2)
No. 86-1318

**In the Supreme Court of the
United States**

October Term, 1986

MONOCLONAL ANTIBODIES, INC.,

Petitioner,

v.

HYBRITECH INCORPORATED.

Respondent.

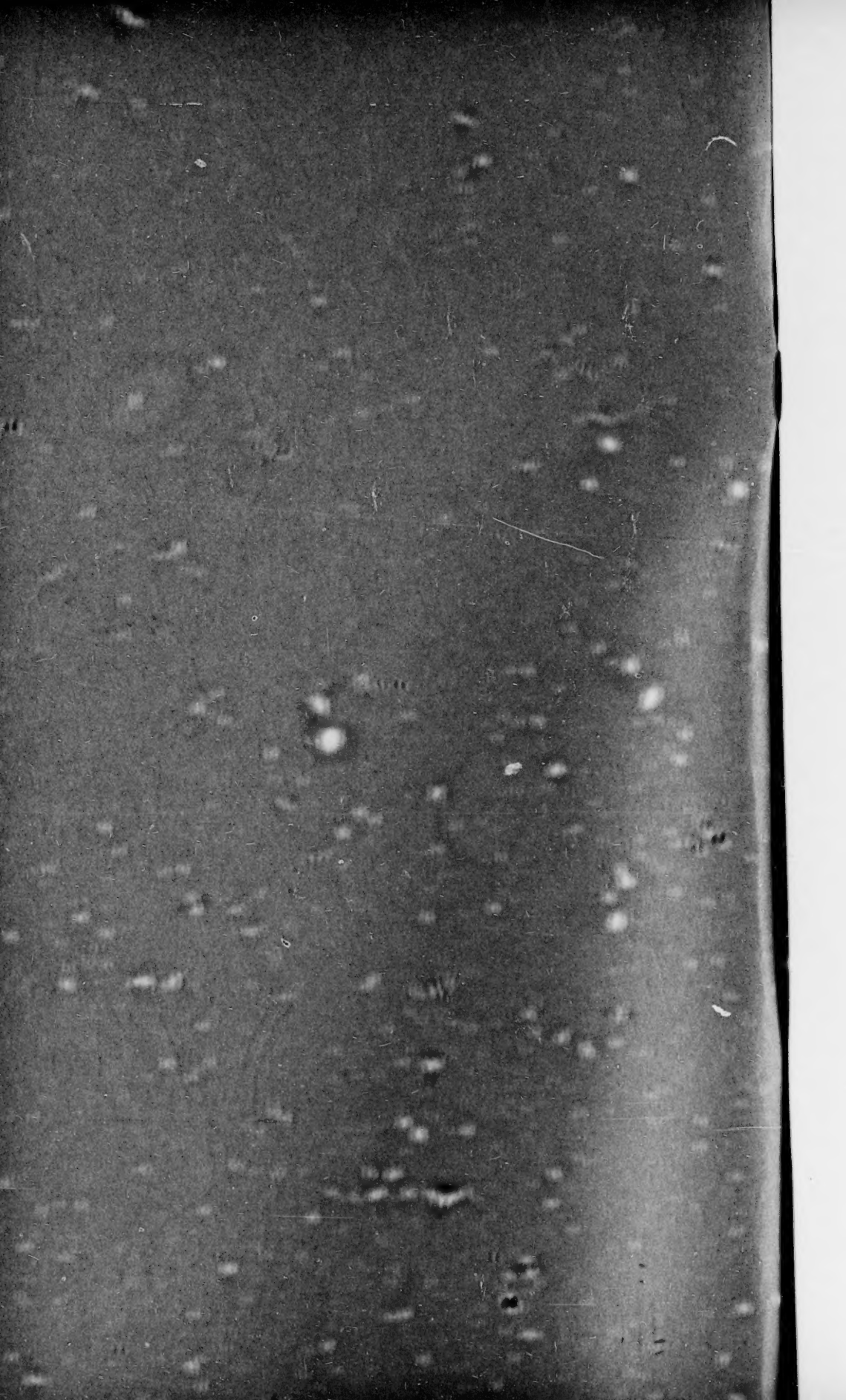
ON PETITION FOR WRIT OF CERTIORARI TO THE
UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

**BRIEF IN OPPOSITION TO
PETITION FOR WRIT OF CERTIORARI**

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QUESTION PRESENTED

Petitioner's complaint is that the Court of Appeals for the Federal Circuit decided this patent case against it. Its Statement of Questions Presented mistakenly asserts violations of Rule 52(a) where none exist, and misreports the record to claim issues under 35 U.S.C. §103 which do not exist and to argue for an interpretation of Section 103 under which that statute is ignored. Petitioner also alleges a procedural failure that did not occur and which, even if it had occurred, would have no bearing on the outcome of this case. Restated, therefore, the sole question for which review is sought can be nothing more or less than whether the Court of Appeals for the Federal Circuit properly held that Petitioner failed to meet its burden of proving patent invalidity pursuant to 35 U.S.C. §282.

Contrary to Petitioner's opening, this case involves no Constitutional provisions. Thus, beyond the sole assertion at page 2 that the Fifth Amendment is involved, one finds no further citation or reference to it. Additionally, past that page, one finds no further substantive reference to the patent and copyright clause of the Constitution, which simply provides Congress with the power, *inter alia*, to enact patent law.

In asking the United States Supreme Court to take up this case, Petitioner requests simply that it conduct a fresh review of the voluminous records of two courts below to rule that the Federal Circuit was wrong and to reinstate all determinations of the District Court that have been held to be clearly erroneous or legally incorrect following review by a unanimous Court of Appeals.

RULE 28.1 STATEMENT

Respondent, Hybritech Incorporated, provides the following list of corporate affiliates in compliance with Rule 28.1:

Eli Lilly & Company
Gen-Probe Incorporated

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STATEMENT OF THE CASE

As evidenced by the extensive discussion of the factual background of the invention by the Federal Circuit, it is important to understand the claimed invention and its substantial differences from and advantages over the prior art. Because Petitioner's Statement of the Case attempts to write those differences and advantages out of existence, and because of other inaccuracies and omissions, Respondent provides this Statement pursuant to Supreme Court Rule 34.2.

Respondent's invention is a very specific type of immunoassay process. At the time Respondent's

invention was made, many different types of immunoassay protocols were known (RA1).¹ Each used as the antibody reagent a polyclonal antiserum, which is a mixture of antibodies isolated from animal blood serum, directed to various antigens and to any number of epitope binding sites on a particular antigen (PA2). Contrary to Petitioner's misleading claim, polyclonal antiserum is not comprised of "monoclonal antibodies", that term being one of art to denote those antibodies produced by the hybridoma cell fusion process which was briefly described by the Court of Appeals (PA2). This cell fusion procedure was first published in 1975 so that by the time Respondent's invention was made in 1979, according to Petitioner's own expert, there were hundreds or thousands of people in the U.S. alone making monoclonal antibodies (RA2-3). Accordingly, Petitioner's contrary statements now that monoclonals were "virtually impossible" to obtain "until recently", and that this explains the previous use of polyclonal antiserum, is neither legitimate nor supported by the record (PA26-27).

Positing "significant problems" with polyclonal antisera as a prelude to the unsupported claim that "scientists knew" that monoclonal antibodies were a panacea, Petitioner concludes without citation that monoclonals "transformed the immunoassay test kit industry." Witnesses employed by Petitioner, by Respondent, and third party witnesses, however, all testified that monoclonal antibodies had significant problems believed to make their use in immunoassays undesirable. What transformed the immunoassay industry was Respondent's patented invention.

¹References to Respondent's Appendix are abbreviated "RA". References to Petitioner's Appendix are abbreviated "PA".

As noted, there were a wide variety of assay techniques employing antibodies at the time the invention was made. They suffered from many common problems including that they were too slow, too complicated, not sufficiently accurate, not sufficiently sensitive, and not sufficiently specific for the target antigen. Respondent's invention solved these problems, leading to unprecedented commercial success. The impact of the invention is illustrated by the fact that it converted the so-called "sandwich"-type assay from a position of distrust and little use to one of market dominance. According to Petitioner's own expert, Blakemore, of 425 immunoassays marketed in 1979 when Respondent's invention was made, over 86% used one particular format, an "exquisitely sensitive" protocol known as the "radioimmunoassay" (RIA), the inventors of which were awarded a Nobel Prize. In sharp contrast, less than 1% (three in number) used the much less sensitive sandwich assay format, which formed a starting point for the claimed invention.

Today a majority of the assays introduced into the market are sandwich-type assays using particularly defined monoclonal antibodies (PA27 n.5). The commercial impact of this invention by Respondent, a small, 1978 venture capital start-up company, is briefly summarized at PA26, where the Federal Circuit noted that Respondent swiftly became the market leader in several fields of immunoassay testing while competing against the giants of the diagnostic industry. Even Petitioner lauds Respondent's great advance in its promotional literature, heralding the invention as faster, simpler, more accurate, and more sensitive than previously known immunoassays. It is, says Petitioner, a "pioneering approach". Monoclonal Antibodies, Inc., 1985 Annual Report, Plaintiff's Trial Exhibit 646.

Reflective of the merits of Petitioner's claim that monoclonal antibodies would be useful wherever polyclonal antisera had been used and that, therefore, there could never be any patentable inventions relating thereto, is the testimony of its own experts about the significant problems of monoclonals. For example, most workers in the field believed — and many still do — that monoclonals have affinities less than conventional polyclonal antiserum and too low for use in immunoassays. Indeed, in 1982, *three years after Respondent's invention*, Petitioner saw fit to announce in its Annual Report that it had “overcome the problem of low affinity encountered by most producers of monoclonal antibodies”. Monoclonal Antibodies, Inc., 1982 Annual Report, Plaintiff's Trial Exhibit 25. Petitioner's co-founder noted in 1980 and 1982 scientific papers the low affinity “drawback” of monoclonals. J. Schroeder, *Monoclonal Antibodies: A New Tool for Research and Immunodiagnosics*, 58 Medical Biology 140 (1980), Plaintiff's Trial Exhibit 74; J. Schroeder, *Monoclonal Antibodies to Human Chorionic Gonadotropin*, (1982), Plaintiff's Trial Exhibit 81. Petitioner's own expert, Dr. Stites, taught in 1984 in the 5th edition of his treatise on clinical immunology that a disadvantage of monoclonals is “decreased affinity”. D. Stites, “Clinical Laboratory Methods for Detection of Cellular Immune Function,” *Basic and Clinical Immunology* (5th Ed., c.1984), Plaintiff's Trial Exhibit 718. Witnesses for both parties and third party witnesses all corroborated this teaching away by the art at the time the invention was made. Dr. Stites also wrote that monoclonals were disadvantaged by being “too specific”, thus having the potential to result in cross-reactions with other than the antigen to which the assay is targeted. D. Stites, *supra*. This can lead to “false positive” results being given to

doctors who must rely on assays such as these to make medical decisions and prescribe treatment. Petitioner also omitted from its statement, arguing the supposed universal application of monoclonals, the fact that the record shows that people who tried to use monoclonals in performing the popular RIA got results that were not as good as those with prior art polyclonal RIAs (RA4-5).

In describing the prior art, Petitioner states that prior art sandwich assays form the three-part complex diagramed at page 4, "as the Federal Circuit stated in its opinion." What the court noted, however, was that Petitioner's figure is merely "illustrative of the sandwich complex" (PA4). This takes into account that polyclonal sandwich assays were not made by selecting at least first and second antibodies (as required by the patent) to bind to remote antigenic sites, which resulted in bound and labeled polyclonal antibodies competing with each other for the same epitopes. It is Respondent's invention that can be a true "two-site" or "selected-site" assay. This allows, for example, one to utilize under any conditions the beneficial assay format where all reactants can be added simultaneously to achieve the performance benefits noted above, including speed.

Petitioner's expert Blakemore admitted that a polyclonal sandwich assay she developed for the thyroid antigen TSH (which could be run in simultaneous format under certain specific conditions only, and was one of the three sandwich assays marketed in 1979) did not involve selection of antibodies that did not compete against each other for binding to the same epitopes (RA6). Further, Blakemore admitted that she had problems with her assay, including the need to run it sequentially rather than simultaneously when greater sensitivity was desired. Yet, even though she had been

aware of monoclonal antibodies for a number of years by that time, she never thought to solve those problems by changing her assay format to correspond to Respondent's invention (RA7). Indeed, expert Blake-more filed for a patent in December 1978 for her polyclonal sandwich assay, which was directed to all antigens, and *neither that application nor her patent*, which could have been amended at any time before its issuance in 1981, *even mentioned monoclonal antibodies* (PA27 n.5).

The trial of this action consumed 14 courtroom days during which time over thirty witnesses testified and eight others testified by deposition. The transcript is over 2000 pages in length. While there were almost 350 exhibits made of record, it was not until the final day of trial that over 100 of those exhibits, about which there had been not a word of testimony, were introduced into evidence. Final argument, limited to one hour per side was held the day following trial. Trial "summaries", limited to twelve pages and only facts (no citation of legal authorities was permitted), were filed on the day following trial. By noon on the third working day after final argument the trial court had issued its findings of fact and conclusions of law.

Those findings and conclusions were adopted almost entirely from Petitioner's pretrial brief and its pretrial proposed findings of fact and conclusions of law, none of which, of course, are referenced by citation to the record (PA6). The District Court, in adopting MAB's pretrial defenses, held Respondent's patent invalid on a variety of grounds under 35 U.S.C. §§102, 103, and 112. A full one half of the alleged prior art references relied upon by the trial court through its adopted findings were never discussed at trial. They were introduced into evidence almost as an afterthought at the close of trial,

together with almost 60 other articles cited by Petitioner that had not been the subject of any testimony or briefing.

The Court of Appeals analyzed the prior art and the evidence relied upon by the trial court. The Federal Circuit also analyzed the District Court's findings and conclusions, noting that Petitioner's pretrial brief and pretrial proposed findings and conclusions had been adopted "virtually verbatim". While expressing misgivings whether such findings satisfied the objectives of Rule 52(a), the court cited *Anderson v. City of Bessemer City, N.C.*, 470 U.S. 564 (1985), and observed that the trial court's findings were nevertheless its own and could be reversed only if clearly erroneous (PA13). Applying the clearly erroneous standard, the Court of Appeals reversed the lower decision, overturning particular findings and holding various legal conclusions to be erroneous as a matter of law, including the District Court's adoption of a number of Petitioner's pretrial claims of patent invalidity under 35 U.S.C. §112 for which *no evidence* had been introduced at trial.

SUMMARY OF ARGUMENT

The Court of Appeals for the Federal Circuit prepared a well reasoned opinion which carefully considered the evidence and the law. In particular, the opinion gave detailed and express consideration to the requirements of Rule 52(a).

Petitioner apparently seeks review to have this Court investigate whether the appellate court really did what it said it was doing. Because the Court of Appeals affirmatively followed this Court's directions regarding Rule 52, Petitioner is forced to say that despite the indicated adherence to that Rule, the Federal Circuit only paid "lip service" to it and thus asks this Court to duplicate a painstaking review of the evidence to

determine that the Court of Appeals was wrong when it held findings of the District Court clearly erroneous. None of the matters set out in this Court's Rule 17 can serve as the basis for such a review and Petitioner has not described any other ground on which this Court should accept certiorari.

We have shown *infra* that Petitioner has misstated the record and omitted critical facts in attempting to support its position. However, it is not necessary to look deeply into Petitioner's arguments about the record because it is clear from the opinion itself that the Federal Circuit made a detailed and appropriate consideration of the evidence and arguments and properly reached a definite and firm conviction that mistake had been committed in light of the record as a whole.

Contrary to the suggestion that the Federal Circuit systematically fails to follow Rule 52, a review of Federal Circuit cases indicates an awareness and sensitivity to that rule. The critical attack on Judge Rich, based upon remarks made to members of the bar, is inappropriate no matter what the remarks may have been. The attack is particularly inappropriate, however, because it is based upon Petitioner's misrepresentation of what Judge Rich really said, which was that Rule 52 is carefully adhered to in the Federal Circuit.

Petitioner's suggestion and request for summary determination by this Court that the invention is a mere substitution and thus *per se* obvious ignores both the law and the long list of facts demonstrating nonobviousness. Those facts establish that the present invention is much more than a substitution of monoclonal antibodies for polyclonal antiserum in a certain immunoassay protocol. First and second monoclonal antibodies having particular characteristics, according

to the invention, can be used in a specific way to achieve improved results not previously obtainable in any of the many types of immunoassays known. This Court has made clear that the law requires the invention as a whole be considered in resolving issues under 35 U.S.C. §103. The law is also clear that the obvious/nonobvious inquiry is not to be, and cannot be, resolved by a slogan relating to the manner in which the invention was allegedly made, e.g., substitution of materials.

The factual inquiries mandated by *Graham v. John Deere Co.*, 383 U.S. 1 (1966), and the requirement that the invention as a whole be examined reveal the "obvious to try" standard advocated by Petitioner to be equally in conflict with the law. Such an approach would mean that no matter how nonobvious the resulting invention, it would not be patentable if the manner in which the invention was made were logical. This ignores the realities of scientific research and shuns the statutory command that the entire invention be considered, including unexpected properties and results and the so-called "secondary considerations". It also ignores the Congressional mandate of 35 U.S.C. §103 that patentability shall not be negated by the manner of making the invention.

No remand is required on diligence. The diligence determination by the Federal Circuit was based upon evidence never contested by Petitioner and was primarily based upon documentary exhibits. Furthermore, the determination of diligence was an alternative decision of the Federal Circuit and, thus, it would be an unnecessary exercise to remand for such a holding by the District Court.

This patent dispute is no different from many cases in other circuits where a Court of Appeals has reversed

based upon a determination that District Court findings were clearly erroneous, a not uncommon event over the years. Petitioner merely wishes this Court to summarily adjudge that the Federal Circuit was wrong in ruling against it and, on that basis, to issue the Writ sought.

ARGUMENT

I.

THE FEDERAL CIRCUIT DID NOT FAIL TO FOLLOW RULE 52

A. The Federal Circuit Specifically Referred to and Utilized Rule 52 in its Decision in this Case

We are content to rely upon the opinion of the Federal Circuit as our best advocate in refuting Petitioner's contention that the court did not properly apply Rule 52(a). The principles which guided the Federal Circuit in its analysis of the District Court's findings are clearly set forth at PA12-13. The Federal Circuit repeatedly relied upon the clearly erroneous standard in analyzing the findings of the District Court (PA15, 18-19, 21, 22, 26 and 31). It is equally manifest that the Federal Circuit carefully considered the record as a whole in concluding that the findings of fact of the District Court were clearly erroneous.

Petitioner recites certain facts which it contends support the findings of the District Court. We will demonstrate that, as the Federal Circuit determined, Petitioner is incorrect in that assertion. However, even if there is some evidence to support the findings, Petitioner's apparent contention that an appellate court must, under Rule 52, sustain the finding of a District Court if there is *any* evidence to support it is erroneous as a matter of law. As this Court said in *United States v. United States Gypsum Co.*, 333 U.S. 364, 395 (1948), *rehearing denied*, 333 U.S. 869 (1948):

“... a finding is clearly erroneous when *although there is evidence to support it*, the reviewing court on the entire evidence is left with a definite and firm conviction that a

mistake has been committed." [Emphasis added.]

B. Judge Rich Has Consistently Exhibited Concern For Rule 52

In support of its claim that the Federal Circuit showed "total disregard" for Rule 52(a) and practiced a fraud in purporting to apply that standard, Petitioner has cropped a public speech, entitled "Thirty Years of This Judging Business," which was given by the author of the opinion. While regrettable in the extreme, it is also reflective of the merits of Petitioner's arguments for review that they are believed best supported by a personal attack on the authoring judge below, implying that he is lacking in either skill or legal competence or honesty. Notwithstanding the fact that the decision complained of was unanimous, that the opinion was joined in by two former Judges of the U.S. Court of Claims, and that such tactics cannot substitute for reasoned analysis, it is substantively undeniable that the speech quoted from by Petitioner cannot indict any of the Federal Circuit, the three-member panel below, or the authoring judge individually.

The speech itself represents a clear message to the bar that the Federal Circuit adheres strictly to its appellate role in reviewing findings of fact. Petitioner has craftily cropped the presentation quoted from, substituting a first ellipses for Judge Rich's statement that his court's emphasis is squarely on Rule 52(a) and "particularly the sentence" which sets out the confines of "clearly erroneous" and "credibility of witnesses". Petitioner also eliminated the very next statement that, therefore, "If a fact finding rests on conflicting testimony and the trial judge made a credibility determination, *you have very little chance of changing it*" (Emphasis

added). Also trimmed from Petitioner's quote — to impart a false understanding of the last-quoted sentence in its footnote 7, "Judge your chances on appeal accordingly." — is the warning by Judge Rich which immediately trails it: "To put it another way, win your case in the trial court."

In constructing its argument for this Court, Petitioner also kept to itself many opinions from the Federal Circuit written for it by Judge Rich where the court acknowledged and explained its limited appellate function, and where it rigorously applied Rule 52(a) and the associated principles that have been announced by this Court. The Court's attention is directed to, for example: *Preemption Devices, Inc. v. Minnesota Mining and Mfg. Co.*, 732 F.2d 903, 905 (Fed. Cir. 1984); *State Industries, Inc. v. A.O. Smith Corp.*, 751 F.2d 1226, 1232 (Fed. Cir. 1985); *Studiengesellschaft Kohle, M.B.H. v. Dart Industries, Inc.*, 726 F.2d 724, 727 (Fed. Cir. 1984); *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 1344-45 (Fed. Cir.) (in banc), *cert. denied*, 469 U.S. 830 (1984).²

²In response to Petitioner's claim that the Federal Circuit as a court has schemed to ignore Rule 52, we note that the Federal Circuit has consistently exhibited an appreciation and an understanding of this Court's directions regarding the application of Rule 52, as well as a concern that Rule 52 be properly applied. Apparently to show the contrary, Petitioner places reliance on *Dennison Mfg. Co. v. Panduit Corp.*, 106 S.Ct. 1578 (1986), where this Court remanded a decision of the Federal Circuit because it had not mentioned Rule 52(a) in overturning District Court findings. *Panduit* is not relevant to Petitioner's cause. The Federal Circuit here thoroughly discussed Rule 52 and expressly applied its clearly erroneous standard, as the court has done on many previous occasions.

Even an abbreviated listing of Federal Circuit cases involving Rule 52(a) indicates that the court has consistently adhered to the

C. The Federal Circuit's Observation on the Credibility of Ruoslahti's Claim of Actual Reduction to Practice in November 1979 Does Not Violate Rule 52

At page 17 of the Petition, the Federal Circuit's observation on the credibility of Ruoslahti's claim of prior invention in November 1979 is erroneously criticized as a reversible violation of Rule 52. The Federal Circuit did not make a determination of Ruoslahti's credibility, but merely referred to a certain document as "bearing on the credibility of Ruoslahti's testimony" — a document which ruled that LJCRF had in a Patent Office proceeding previously been unable to prove prior invention at *any time* before Respondent's August 1980 filing date, let alone in November 1979. Other evidence directly refuting Petitioner's claim of prior invention by Ruoslahti included his own written list of the earliest

clearly erroneous standard since its formation in 1982: *Revlon, Inc. v. Carson Products Co.*, 803 F.2d 676, 678 (Fed. Cir. 1986), *cert. denied*, 107 S.Ct. 671 (1986); *Windsurfing International, Inc. v. AMF Inc.*, 782 F.2d 995, 1000 (Fed. Cir.), *cert. denied*, 106 S.Ct. 3275 (1986); *Pentec, Inc. v. Graphic Controls Corp.*, 776 F.2d 309, 313 (Fed. Cir. 1985); *In re Mark Industries*, 751 F.2d 1219, 1222-23 (Fed. Cir. 1984); *Litton Systems, Inc. v. Sundstrand Corp.*, 750 F.2d 952, 956 (Fed. Cir. 1984); *Stock Pot Restaurant, Inc. v. Stockpot, Inc.*, 737 F.2d 1576, 1578-79 (Fed. Cir. 1984); *Atlas Powder Co. v. E.I. Du Pont De Nemours & Co.*, 750 F.2d 1569, 1573 (Fed. Cir. 1984); *Vandenberg v. Dairy Equipment Co.*, 740 F.2d 1560, 1565 (Fed. Cir. 1984); *Seattle Box Co. v. Industrial Crating & Packing, Inc.*, 731 F.2d 818, 823 (Fed. Cir. 1984); *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1535 (Fed. Cir. 1983); *Carl Schenck, A.G. v. Nortron*, 713 F.2d 782, 785 (Fed. Cir. 1983).

Petitioner's allegation at page 11, that the Federal Circuit has shown a continuing disregard for Rule 52 is thus completely at odds with the repeated indications of adherence to that Rule by the Federal Circuit.

dates LJCRF could assert for his alleged work (which dates were all in 1980, much later than the 1979 date he testified to). The Federal Circuit also point out that: (1) there were unexplained alterations of the only notebook page Ruoslahti relied upon in his testimony, which showed only several graphs, and noted that in addition to the alterations, the page was not signed, witnessed or dated; (2) the notebook author and alleged co-inventor Uotila could not remember the procedure allegedly run to obtain the data graphed on the page and testified that there was not enough information in the notebook to refresh her memory; (3) neither Ruoslahti nor Uotila could find any data in the notebook supporting the notebook page; (4) a third alleged co-inventor testified that there was nothing about the shape of the curves which indicates they reflect sandwich assays; (5) none of the later graphs in the notebook represented a successful assay; and, (6) that severe problems were encountered after the work on the disputed page was concluded (PA20-21). Thus, the record as a whole provides ample basis for serious concern about the credibility of Ruoslahti's *statement* that he reduced the invention to practice in November 1979. Petitioner does not make a contrary contention.

The Federal Circuit did not discount the testimony of Ruoslahti in favor of another witnesses' testimony but rather tested Ruoslahti's conclusory statement with inconsistencies in his own testimony, with the testimony of his co-workers, and with the documentary evidence. The Federal Circuit did not hold that findings regarding the alleged LJCRF work were clearly erroneous, but rather that the facts were "legally inadequate" to establish a conception or reduction to practice (PA20). It was clearly proper for the Court of Appeals to evaluate Ruoslahti's claim in light of documentary evidence and

internal inconsistencies. In *United States v. United States Gypsum Co.*, 333 U.S. 364, 396 (1948), *rehearing denied*, 333 U.S. 869 (1948), this Court gave little weight to that kind of testimony, stating:

Where such testimony is in conflict with contemporaneous documents we can give it little weight, particularly when the crucial issues involve mixed questions of law and fact. Despite the opportunity of the trial court to appraise the credibility of the witnesses, we cannot under the circumstances of this case rule otherwise than that Finding 118 is clearly erroneous.

Petitioner points out that the trial court listed a group of witnesses, which was comprised of every one of Petitioner's witnesses save several of its employees, to be "credible." But the trial court cannot insulate its findings from review by such a recitation, which did not include a determination that any finding was based on a credibility decision. This Court in *Anderson v. Bessemer City*, 470 U.S. 564, 84 L.Ed.2d 578, 529 (1985), stated that a Court of Appeals may well overturn a finding that was said to be based on a credibility evaluation, noting that a trial judge may not

insulate his findings from review by denominating them credibility determinations, for factors other than demeanor and inflection go into the decision whether or not to believe a witness. Documents or objective evidence may contradict the witness' story; or the story itself may be so internally inconsistent or implausible on its face that a reasonable fact finder would not credit it. Where such factors are present, the Court of Appeals may well find clear error

even in a finding purportedly based on a credibility determination. See, e.g., *United States v. United States Gypsum Co.*, *supra*, at 396, 92 L Ed 746, 68 S Ct 525.

Thus, in light of the record as a whole, we suggest that the so-called “smoking gun” is not in the Federal Circuit’s hand but rather in Petitioner’s hand in the form of Ruoslahti’s unsupportable claim, as properly determined by the Federal Circuit.

D. The Federal Circuit Properly Applied Rule 52 in Reviewing Evidence of Conception

At pages 11-15, Petitioner embarks on a detailed fact argument intended to show that the Federal Circuit was simply wrong in its application of Rule 52(a) to the question of conception of the invention by Hybritech. This analysis fails to address itself to any issue for which the granting of a writ might be appropriate under Rule 17 of this Court and, again, we rely on the Federal Circuit’s opinion as the best evidence in refutation (PA 16-19). However, to the extent this factual argument may be construed as a contention that the Federal Circuit is engaged in a conspiracy to acknowledge Rule 52(a) and yet routinely ignore its requirements (Petition at 8 and 11), we briefly respond by showing that Petitioner’s claims are not supported by the record.

Petitioner is wrong in contending that a January 1979 conception date is “critical” to Respondent’s case. Assuming no prior reduction to practice, establishment of a date of conception by Respondent prior to its August 1980 patent application filing date would have been “critical” only (1) if the alleged LJCRF work had been found to be a reduction to practice of the invention, or even a conception, prior to August 1980 or (2) if

the December 1979 Herzenberg article had been found to be an invalidating description of the invention. Neither were and, therefore, the establishment of a conception date is alternative to the Federal Circuit's decision against Petitioner. Further, even if the alleged LJCRF work or the Herzenberg article had been held to otherwise invalidate the patent, a reduction to practice by Respondent before November 1979 predated such activities, as Petitioner admitted at trial (but omitted here) (PA17-18). This earlier reduction to practice eliminates both as prior art.

The Federal Circuit reversed as clearly erroneous the trial court's finding that there was no credible evidence of conception prior to May 1980, remarking that there plainly was and holding that such evidence, including laboratory notebooks from August, September and October 1980 — as well as the admission of Petitioner's own patent law expert that Respondent invented first, was legally sufficient to establish a conception of the claimed invention (PA16-18). Petitioner has made no contention that this evidence does not establish a conception and reduction to practice of the invention.

Petitioner implies that there is a finding that Dr. David was not credible. There was no such finding but rather only a statement that various other witnesses were credible. The failure to make a finding regarding that credibility of Dr. David is not a determination that he is not credible.

Petitioner's contention that the Federal Circuit conceded that conception was "sparsely documented" misses the mark. A conception may be evidenced by a single document and the Court of Appeals merely stated that conception was "evidenced by the sometimes sparsely documented work of a start-up company . . ."

However, documentation evidencing conception and reduction to practice in the Summer and Fall of 1979, long before the alleged LJCRF work, was not "sparse," but rather included notebook pages and memoranda which provides enough documentation for Petitioner's patent law expert to admit Respondent's prior invention through an August 1979 reduction to practice using monoclonal antibodies (designated "068") having the claimed affinity (PA18).

Thus, it is clear that there was ample documentary and testimonial evidence to support the Federal Circuit's legal conclusion that the date of conception was at least before November 1979, thus predating the alleged LJCRF work and the Herzenberg article (PA16). As is plain from the Petition, there is no argument with this legal conclusion.

E. The Federal Circuit Properly Applied Rule 52 in Holding that the District Court's Finding on Commercial Success Was Clearly Erroneous

Petitioner contends that the Federal Circuit did not properly analyze the facts regarding commercial success solely because it did not take into account the "lead time" necessary to develop an assay. This is alleged to be "a reason" for the commercial success that Petitioner admits, although Petitioner does not reveal its weight.

Lead time is a new theory not advanced below. The trial court made no findings regarding lead time. In any event, Petitioner is wrong in contending that the time to develop a particular assay is three years. Both Respondent and Petitioner made their first assays, received FDA approval after testing, and put them on the market in less than two years. Petitioner's time to market was less than Respondent's, it having had the benefit of copying the invention from Respondent.

However, even assuming that three years were the time required to develop an assay (and that one should mark the beginning of that time period at the "founding" of the Respondent company in October 1978, as suggested at page 18), the point which Petitioner ignores is that everyone should have been on the market in 1981 because Petitioner acknowledged that monoclonal antibodies were widely available at least in 1978 (PA26). The facts are that nobody was on the market when Respondent introduced its monoclonal assays in June 1981 and even with Respondent's success, only Petitioner had entered the market by the end of 1982. Additionally, of course, "lead time" does not explain the commercial success that Petitioner has reaped by its infringement of the patent-in-suit.

II.

THE TRIAL COURT USED ALMOST VERBATIM AS ITS OPINION PETITIONER'S PRE-TRIAL BRIEF AND PRETRIAL PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW

As noted, the District Court saw fit to rule in favor of Petitioner by a virtual adoption of Petitioner's *pre-trial* brief and *pre-trial* proposed findings of fact and conclusions of law as its opinion. While the District Court eliminated all references to Petitioner's lone noninfringement defense and to its validity defense of fraud in the Patent Office, Respondent was never asked, nor given an opportunity, to respond to those pre-trial papers. Accordingly, the opinion of the District Court reflected more the pre-trial views of a lawyer than it did the record in this case. Indeed, as the Court of Appeals noted, this adoption of pre-trial submissions resulted in "facts" being found and "issues" being decided

that were *not the subject of evidence at trial* (PA13). Petitioner admitted as much by abandoning on appeal one of its two anticipation defenses under 35 U.S.C. §102 and half of its six 35 U.S.C. §112 defenses, even though the District Court had ruled in its favor on each of them by adopting its pretrial allegations.³

Petitioner incorrectly states that there was “no reason” for the Federal Circuit to remark that the District Court used nearly verbatim Petitioner’s pre-trial arguments in producing its opinion “other than to disparage” the lower court. This Court, as well as every circuit that has addressed the issue, has condemned the practice of even having the prevailing party *after decision* prepare the lower court’s findings and conclusions. Such a practice has been particularly criticized “when those findings have taken the form of conclusory statements unsupported by citation to the record.” *Anderson v. City of Bessemer City*, 84 L.Ed 2d 518, 527 (1985). The fact that there are no citations to the record in the lower court’s opinion here, aside from exhibit numbers identifying several publications, is because Petitioner’s adopted *pre-trial* papers could not have contained such citations.

Notwithstanding the District Court’s method of announcing its decision the Federal Circuit did not base its judgment upon the District Court having engaged in this disapproved practice. The Court of Appeals emphasized that “those findings are the District Court’s and may be reversed only if clearly erroneous”, citing

³It is equally noteworthy that Petitioner has abandoned here its remaining Section 112 invalidity claims, which were characterized by the Federal Circuit as “utterly baseless” (PA29), thus leaving in the case only a single claim under each of sections 102 and 103 from Petitioner’s original eleven defenses. Petitioner’s 35 U.S.C. §102 defense is based on its claims regarding LJCRF.

Anderson (PA13). Petitioner's reference to a speech by Federal Circuit Chief Judge Markey, where he espoused the benefits of deciding a case from the bench, is not pertinent. Even a cursory reading of Judge Markey's article indicates that, although he advocated a decision shortly after trial, he also emphasized that the trial court "will do what's appropriate in due course in the way of findings and conclusions." Preparing findings by adopting pretrial briefs and proposed pretrial findings is hardly "appropriate".

The fact that the Federal Circuit noted the District Court's reliance on the universally discouraged practice of adopting findings and conclusions without record citation and without comment from the other side, therefore, does not support Petitioner's case for review. Further, the suggestion at page 19, that Judge Conti recused himself because of the Federal Circuit's proper comments is baseless and inappropriate. No reason was given for his recusal, although new conditions existed at the time of recusal including new parties in interest. Thus, Petitioner's attempt to rely on Judge Conti's recusal as a dissent should be ignored.

III.

THE FEDERAL CIRCUIT PROPERLY APPLIED THE LAW ON OBVIOUSNESS

A. Petitioner's Argument on "Substitution" Is A Strawman Stuffed With Misrepresentation and Knocked Down With Inapt Precedent

Contrary to Petitioner's lead off misstatement, there is no finding that the only difference between the claimed invention and the prior art was the substitution of monoclonal antibodies for polyclonal antisera. As explained *supra*, for example, the claimed invention has

been a tremendous commercial success due to its unexpectedly superior and medically significant attributes, and today a majority of the assays introduced into the market are sandwich-type assays using certain monoclonal antibodies. Even Petitioner hails the great differences in the claimed invention, emphasizing in its Annual Reports and promotional literature that it is *faster, simpler, more accurate, and more sensitive* than what went before. In fact, Petitioner recently described the patented process it infringes as a “pioneering approach”, and earlier stated that “Over the next five years, older, conventional methods of testing are expected to shrink in use and some may disappear completely”. Monoclonal Antibodies, Inc., 1984 Annual Report, Plaintiff’s Trial Exhibit 1. Thus, contrary to Petitioner’s “mere substitution” argument, it is plain — and it is admitted — that the “invention as a whole” is much, much more.

This Court emphasized in *United States v. Adams*, 383 U.S. 39, 50-51 (1966), there can be no “mere substitution” in fact where the characteristics of the claimed invention are different from those found in the prior art:

Nor is the government’s contention that the electrodes of Adams were mere substitutions of pre-existing battery designs supported by the prior art. If the use of magnesium for zinc and cuprous chloride for silver chloride were merely equivalent substitutions, it would follow that the resulting device — Adams’ — would have equivalent operating characteristics. But it does not.

This Court in *Adams* also relied on the disbelief of experts in support of its conclusion of patentability. Similarly, there is the uncontradicted trial testimony here of experts in the fields of pregnancy testing, human

growth deficiency testing, and thyroid testing that they were surprised that the claimed invention worked and, indeed, that it worked so much better than the best prior art assays (PA27-28). Even Petitioner's own expert stated of the invention: "I don't personally know of anything better. . . ." (RA8).

It is equally clear, however, that the trial court ignored the above evidence and distinguishing aspects of the invention in adopting most of Petitioner's pretrial brief as its opinion. That refusal led the Federal Circuit, properly, to admonish that the trial court had failed to consider the invention as a whole, as it was required by law to do.

Petitioner at pages 22-23 attempts to construe the language of the Federal Circuit as error. But the Court of Appeals' language is merely indicative of its effort to be faithful to the law, which requires that it is the invention "as a whole" which must be tested for obviousness. Thus, the Federal Circuit criticized the trial court for focusing only on the obviousness of claim language differences, that focus being contrary both to 35 U.S.C. §103 and the direction of this Court. *E.g., Parker v. Flook*, 437 U.S. 584, 594 n.16 (1978).

Each obviousness determination must be judged on its own facts. Petitioner's citation of *Hotchkiss v. Greenwood* and suggestion that monoclonal antibodies isolated from immortal hybridoma fusion cell cultures involve the same considerations as clay doorknobs, and that sandwich immunoassays are similar to clay knobs with metallic shanks, stretches a bad analogy far beyond its breaking point. In essence, the suggestion that the same result should necessarily apply in both cases is a specific rejection of the statute and the factual inquiries dictated by *Graham v. John Deere Co.*

B. Petitioner's Suggested Obvious To Try Test for Patentability Is Equally at Odds with the Law

At page 25, Petitioner relies upon its overturned pretrial claims of "suggestions to use" monoclonals for everything and argues that the trial court's obvious to try approach is the proper test for obviousness. But such an approach is at odds with 35 U.S.C. §103, over 20 years of case law from the circuits, and the instruction of this Court.

The Court of Customs and Patent Appeals long ago rejected the attempt to substitute an "obvious to try" inquiry as the standard or test of patentability under 35 U.S.C. §103. *In re Huellmantel*, 324 F.2d 998, 1001 n.3 (CCPA 1963). According to the court, speaking through Judge Rich, co-author of the 1952 Patent Act where section 103 finds its origin, that approach merely

begs the question, which is obviousness under §103 of *compositions* and *methods*, not of the direction to be taken in making *efforts* or *attempts*. Slight reflection suggests, we think, that there is usually an element of "obviousness to try" in any research endeavor, that it is not undertaken with complete blindness but rather with some semblance of a chance of success, and that patentability determinations based on that as the test would not only be contrary to statute but result in a marked deterioration of the entire patent system as an incentive to invest in those efforts and attempts which go by the name of "research." [Emphasis by the court.]

In re Tomlinson, 363 F.2d 928, 931 (CCPA 1966). Serendipity is not a prerequisite to patentability. *In re Lindell*, 385 F.2d 453, 455 (CCPA 1967). Additionally,

of course, acceptance of "obvious to try" as the standard of 35 U.S.C. §103 would be in complete disregard of the invention "as a whole" mandate of that statute. *In re Goodwin*, 576 F.2d 375, 377 (CCPA 1978); *In re Antonie*, 559 F.2d 618, 620 (CCPA 1977).

Thus, Petitioner's obvious-to-try "standard" not only involves a long-since rejected analysis for which there is no authorization but it precludes a consideration of the invention as a whole for which there is an explicit statutory directive. *Roberts v. Sears, Roebuck & Co.*, 723 F.2d 1324, 1334 (7th Cir. 1983) (en banc); *Novo Industri A/S v. Travenol Laboratories, Inc.*, 677 F.2d 1202, 1208 (7th Cir. 1982); *Trio Process Corp. v. L. Goldstein's Sons, Inc.* 461 F.2d 66, 72 n.18a (3rd Cir. 1972), *cert. denied*, 409 U.S. 997 (1972). Of course, the case law also belies Petitioner's conclusion that "obvious to try" is merely "a meaningless slogan-type standard", which it apparently suggests is employed by the Federal Circuit "simply to justify a reversal of the trial court." Petitioner further errs in its claim that the Federal Circuit assumes that "evidence it choses to label as 'obvious to try' evidence is automatically of no weight." The Federal Circuit did not "automatically" exclude the evidence, but rather analyzed the references in question and the record to conclude that they "do not suggest how that end might be accomplished " (PA23).

IV.

**REMAND IS NEITHER NECESSARY NOR
APPROPRIATE**

Petitioner's request for a remand is truly an afterthought, unsupported by substance. Although Respondent urged reversal and emphasized in its opening brief on appeal that no remand was necessary, Petitioner did not suggest the appropriateness of a remand in any of its arguments to the Federal Circuit until after the court had reversed. Even then, Petitioner did not contest diligence or make the argument which it now asserts, that a remand was necessary for a ruling on diligence. That theory is presented for the first time in this Court.

There are many reasons, however, why a remand is not necessary or appropriate. First, there was neither evidence nor argument contradicting the Federal Circuit's determination of diligence and, thus, it was an inescapable conclusion. Second, the determination of diligence was made primarily from a documentary record. Finally, and perhaps most important, the court's conclusion on diligence was alternative to its holding, both because the evidence of alleged LJCRF work was inadequate as a matter of law to show the claimed invention and the court considered the most pertinent references, and because Petitioner's expert admitted at trial that Respondent reduced its invention to practice long before both the claimed LJCRF activities relied on by Petitioner and the several, merely cumulative articles which Petitioner erroneously says now, for the first time, are "the most relevant".

Respondent's proofs included laboratory notebook pages and other documentary exhibits showing diligent attention to the development of the invention through 1979 and the first half of 1980. On the basis of these

documents alone, it was possible for the Court of Appeals to make a determination on the diligence which Petitioner never contested. The documents were primarily introduced through Dr. David who testified for approximately a day and a half explaining and describing the large volume of documents witnessing diligence. As noted by the Federal Circuit (PA19), there was

absolutely no evidence of record nor even argument by Monoclonal that Hybritech was not diligent in its efforts to reduce to practice the claimed invention during the period January 1979 to the application filing date of August 4, 1980.

Nevertheless, Petitioner now argues that there should have been a remand to the District Court to rule on diligence. There is no need for a remand when the record permits only one resolution of the issue. *Dayton Board of Education v. Brinkman*, 443 U.S. 526, 534-537 (1979), rehearing denied, 444 U.S. 887 (1979); *Bigelow v. Virginia*, 421 U.S. 809, 826-27 (1975); *Levin v. Mississippi River Fuel Corp.*, 386 U.S. 162, 170 (1967) ("Effective judicial administration requires that we dispose of the matter here"). Where, as here, the evidence of diligence is primarily documentary, there is even less necessity of review by the District Court. *United States v. General Motors Corp.*, 384 U.S. 127, 141-42 n.16 (1966); *Jennings v. General Medical Corp.*, 604 F.2d 1300, 1305 (10th Cir. 1979).

Petitioner's reliance on *Icicle Seafoods, Inc. v. Worthington*, 106 S.Ct. 1527 (1986) is misplaced because in *Icicle* the Court of Appeals neither discussed nor analyzed the contrary findings of the District Court, but reviewed the record independently and found facts

inconsistent with the District Court's findings. Here, unlike *Icicle*, the District Court made no diligence determination, and the diligence evidence was undisputed. Of course, remand is also needless because diligence was discussed in connection with the alleged prior work by LJCRF and with respect to several irrelevant, non-prior art references, one of which was written by Respondent in 1980. The first date alleged for carrying out the invention by LJCRF was in early November 1979 (PA20). However, in addition to the testimony of Petitioner's own expert that Respondent made the invention first, in August 1979, (thus eliminating several cumulative articles of the more than 80 cited by Petitioner, the fully considered Oi/Herzenberg and Frankel works so heavily relied on and emphasized by Petitioner being "the most pertinent" (PA24)), the Federal Circuit held that the work relied upon to establish a reduction to practice by LJCRF was "legally inadequate to support even a holding of conception of the claimed invention by LJCRF personnel in 1979" (PA20). Therefore, the facts relied upon by Petitioner and the District Court to establish conception and reduction to practice by LJCRF were legally inadequate for that purpose and the holding of the Federal Circuit that there was diligence from a time prior to that alleged work is an alternative one.

Petitioner suggests that remanding on the issue of patent infringement but not on the issue of diligence is troubling. The two issues are readily distinguishable. Infringement is an entire issue on which the trial court entered no express findings. An infringement determination decides whether there is liability. On the other hand, the issue of diligence relates to validity and is merely one factor to be considered on the issue of priority of invention, and only if necessary. In this case, in view

of Petitioner's admission and the inadequacy of its LJCRF proofs, a diligence determination is not required in order to hold that the activities of LJCRF and several publications were not prior art. Accordingly, there is a great difference between the collateral issue of diligence and the determination of infringement.

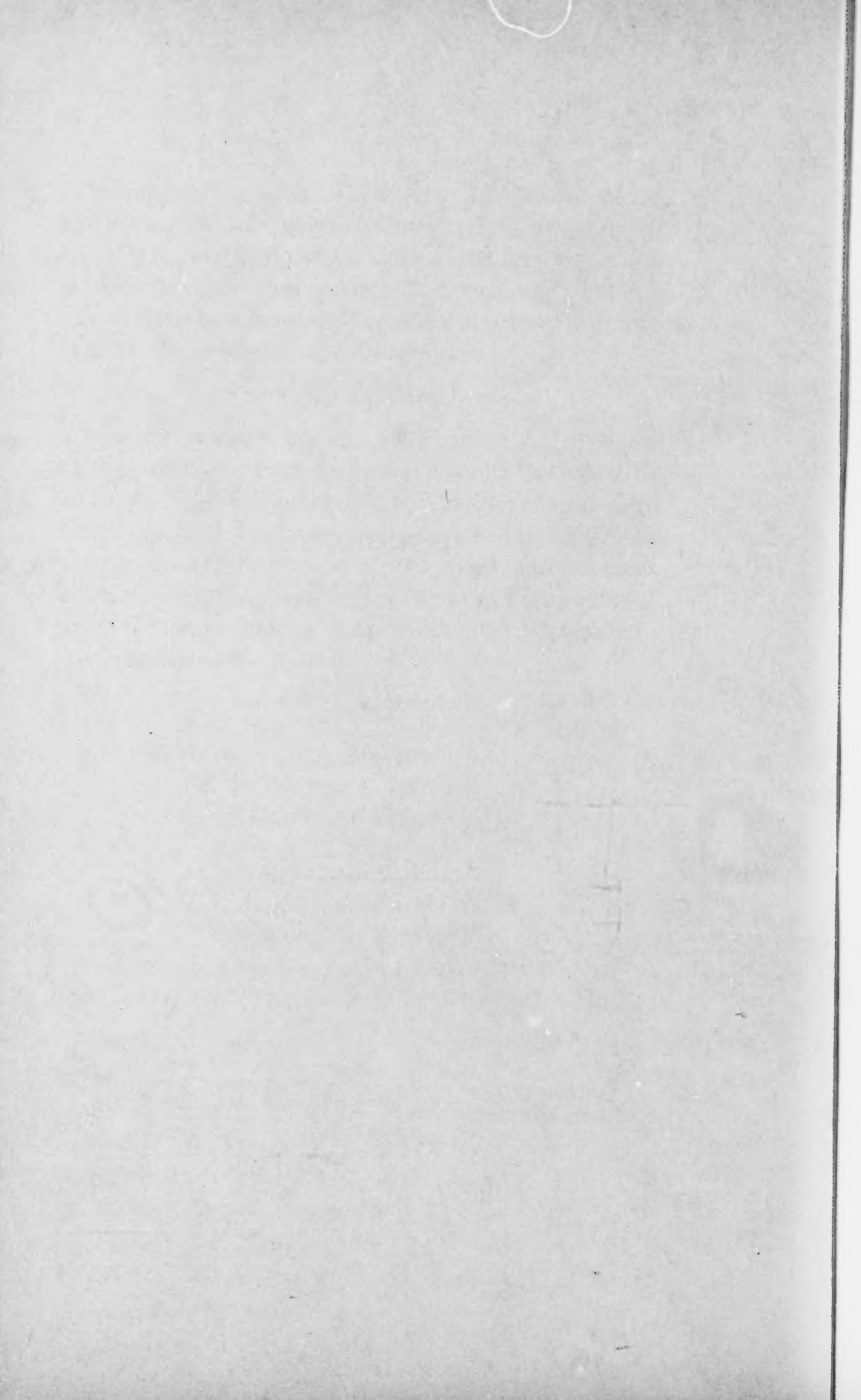
CONCLUSION

For the reasons above, the Petition for Writ of Certiorari to the Federal Circuit should be denied on all issues. The Petition should also be denied under this Court's Rule 21.5 because Petitioner failed to adequately present those facts "essential to a ready and adequate understanding" of its arguments, forcing Respondent to provide them instead and to correct Petitioner's misreporting of the record.

Respectfully submitted,

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APPENDIX



SOLUBLE PROTEIN MEASUREMENT

- A. Precipitation
 - Radialimmunodiffusion
 - Immuno-electrophoresis
 - Electroimmunodiffusion
 - Nephelometry
 - Ring Test
 - Oudin Tube
- B. Agglutination
 - Latex
 - Hemagglutination
 - Particle Enhanced Nephelometry
- C. Radioisotopic
 - RIA
 - Double Antibody
 - Solid Phase
 - IRMA
 - Non Sandwich

- Sandwich
 - Radioimmuno-electrophoresis
- D. Enzymatic
 - Enzyme Immunoassay
 - IMA
 - EMIT
- E. Fluorometric
 - FIA - Fluoroimmunoassay
 - Enzyme Mediated
 - Direct FIA
 - IFMA - Immunofluorometric
 - Enzyme Mediated
 - Direct IFMA
 - Fluorescence Quenching Enhancement
 - Fluorescence Polarization
 - Time Phase Fluorescence
- F. Electron Spin Resonance
- G. Chemilluminescence



Al

HERZENBERG-CROSS 11-1418

Q. YOU KNOW THAT BY 1979 A LARGE NUMBER OF COMMERCIAL COMPANIES WERE MAKING MONOCLONAL ANTIBODIES; ISN'T THAT CORRECT?

A. BY '79? WHAT PART? BEGINNING OF '79, LET'S SAY?

Q. SURE.

A. BEGINNING OF 79—I DON'T THINK THERE WERE A LARGE NUMBER AT THAT POINT. I'M NOT SURE. I DON'T KNOW HOW MANY WERE MAKING THEM. ABOVE I DOUBT ANYWHERE NEAR THE NUMBER THAT ARE NOW DOING IT.

Q. CERTAINLY THERE WERE A VERY LARGE NUMBER OF DIFFERENT LABORATORIES USING MONOCLONAL ANTIBODIES AT THE BEGINNING OF 1979; ISN'T THAT CORRECT?

A. I WOULD SAY THAT THERE WERE PROBABLY ONE HUNDRED OR MORE LABORATORIES, IF THAT'S A LARGE NUMBER, MORE THAN ONE HUNDRED.

Q. WOULDN'T YOU SAY THAT BY 1979 THE NUMBER OF PEOPLE WHO WERE MAKING MONOCLONAL ANTIBODIES WAS IN THE THOUSANDS?

A. MAYBE I SAID THAT IN MY DEPOSITION. BUT '79—BEGINNING OF '79—THE MEETING AT THE NIB WAS IN '78, I THINK WE DECIDED. IT GOT PUBLISHED IN '78. I THINK THE MEETING WAS HELD EARLY THAT YEAR IN THE SPRING.

AT THAT TIME THERE WERE WELL OVER ONE HUNDRED PEOPLE PRESENT, PERHAPS ALMOST 200. AND SO THE WORD PROBABLY SPREAD PRETTY RAPIDLY.

HERZENBERG-CROSS 11-1418

I CERTAINLY DON'T THINK I EVER COUNTED THEM. IT IS IN THE HUNDREDS OR THOUSANDS. I WOULD MORE LIKE TO AIM TOWARDS THE HUNDREDS ON REFLECTION. IT IS A LARGE NUMBER. . . .

RODRICK-HYBERG-DIRECT 13-1784

Q. YOU HAVE USED MONOCLONAL ANTIBODIES IN SOME RIA COMPETITIVE ASSAYS?

A. IN SOME COMPETITIVE ASSAYS, CORRECT, BUT NOT NECESSARILY RADIOIMMUNOASSAY.

Q. HAVE YOU USED MONOCLONAL ANTIBODIES IN RADIOIMMUNOASSAYS?

A. HAVE I PERSONALLY USED A MONOCLONAL ANTIBODY IN A CONVENTIONAL RIA, IS THAT WHAT YOU ARE ASKING?

Q. YES.

A. I DON'T REALLY RECALL IF I HAVE OR NOT. IT WOULDN'T HAVE BEEN A ROUTINE ACTIVITY.

Q. IN THE COMPETITIVE ASSAYS THAT YOU HAVE PERFORMED, YOU HAVE HAD POLYCLONAL ANTIBODIES PERFORM BETTER THAN MONOCLONAL ANTIBODIES, ISN'T THAT CORRECT?

A. NOT THAT I PERSONALLY PERFORMED IN COMPETITIVE ASSAYS. I DON'T RECALL THAT I MADE THAT DIRECT COMPARISON.

Q. I'D LIKE TO READ FROM YOUR DEPOSITION—

A. WHICH PAGE?

Q. STARTING AT PAGE 80. LOOK AT LINE 17. I'D LIKE TO READ THERE.

“Q. I AM TALKING ABOUT THE SAME, EXCEPT IN ONE CASE YOU USED MONOCLONAL ANTIBODIES, IN ANOTHER CASE YOU USED POLYCLONAL ANTIBODIES.”

COLLOQUY. THEN LINE 24:

“IN OUR ANTIBODY DEVELOPMENT, THEIR SCREENING PROCESSES DO COMPARE, AND IT USED TO BE THEIR IN-HOUSE CONTROL WAS A POLYCLONAL

RODRICK-HYBERG-DIRECT 13-1784

AND OFTENTIMES OUR MONOCLONALS DID NOT PERFORM AS WELL.

Q. THAT'S IN THE SCREENING PROCESS BEFORE YOU PICKED THE RIGHT MONOCLONAL ANTIBODY PAIR; IS THAT RIGHT?

A. IT IS JUST IN THEIR CHARACTERIZATION OF ANTIBODIES, SOME OF WHICH ARE USED IN IMMUNOASSAYS. EVEN THOUGH NOT RADIOIMMUNOASSAY, THEY DID NOT PERFORM AS WELL AS THE CONTROL.

Q. AS TO SOME RADIOIMMUNOASSAYS YOU HAVE HAD POLYCLONAL ANTIBODIES PERFORM BETTER THAN MONOCLONAL ANTIBODIES; IS THAT RIGHT?

A. YES. AND THOSE ARE THE ONLY DIRECT COMPARISONS WHERE YOU JUST INSTITUTED THE TWO THAT I CAN RECALL."

IS THAT CORRECT?

A. THAT'S CORRECT. BUT I DID NOT PERFORM THOSE ASSAYS. ANOTHER DEPARTMENT DID. THAT IS WHAT YOUR QUESTION WAS.

BLAKEMORE-CROSS 9-1031

Q. YOUR TSH ASSAY USED TWO ANTIBODIES BOTH DIRECTED—POLYCLONAL ANTIBODIES—BOTH OF WHICH WOULD BIND TO THE SAME EPITOPES, ISN'T THAT RIGHT?

A. TO THE BEST OF MY KNOWLEDGE, THAT IS TRUE.

Q. SO YOUR SANDWICH ASSAY DID NOT INVOLVE SELECTING ANTIBODIES THAT DON'T INTERFERE WITH EACH OTHER, DID IT?

A. THE ASSAY THAT WAS COMMERCIALIZED FOR TSH DID NOT INVOLVE SELECTING OF ANTIBODIES WHICH DID NOT INTERFERE WITH EACH OTHER.

BLAKEMORE-CROSS 9-1040

A. THAT IS CORRECT.

Q. AND BY 1980, YOU WERE AWARE OF ADVANTAGES OF USING MONOCLONAL ANTIBODIES IN SANDWICH ASSAYS?

A. THAT IS CORRECT.

Q. AND BY 1980, YOU WERE AWARE OF PROBLEMS WITH YOUR SANDWICH ASSAY USING POLYCLONAL ANTIBODIES?

A. THAT IS CORRECT.

Q. AND YOU NEVER SUBSTITUTED OR SELECTED MONOCLONAL ANTIBODIES TO REPLACE POLYCLONAL ANTIBODIES IN YOUR TSH KIT, DID YOU?

A. NOT WHEN I WAS THERE, NO.

CIOTTI-CROSS

10-1253

Q. BASED UPON THE POLYCLONAL ASSAYS THAT YOU ARE AWARE OF, IT WOULD BE A RETROGRESSION, WOULDN'T IT?

A. I DON'T KNOW PERSONALLY OF ANYTHING BETTER THAN WHAT IS OUT THERE ON THE MARKET.

Q. YOU ARE REFERRING TO THE MONOCLONAL SANDWICH ASSAY?

A. YES.

Q. AND THE MONOCLONAL ASSAY IS SOMETHING WHICH IS ADDED TO THE SUM OF HUMAN KNOWLEDGE, ISN'T THAT RIGHT?

A. ADDED TO THE SUM OF HUMAN KNOWLEDGE. YOU MEAN IN GENERAL?

Q. YES.

A. YES.

PROOF OF SERVICE BY MAIL

State of California

ss.

County of Los Angeles

I, the undersigned, say: I am and was at all times herein mentioned, a citizen of the United States and a resident of the County of Los Angeles, over the age of eighteen (18) years and not a party to the within action or proceeding; that my business address is 11333 Iowa Avenue, Los Angeles, California 90025; that on March 11, 1987, I served the within *Brief in Opposition to Petition for Writ of Certiorari* in said action or proceeding by depositing true copies thereof, enclosed in a sealed envelope with postage thereon fully prepaid, in the United States mail at Los Angeles, California, addressed as follows:

Clerk, United States
Supreme Court
One First Street, N.W.
Washington, D.C. 20543
(Original and forty copies)

David J. Brezner, Esq.
Flehr, Hohbach, Test,
Albritton & Herbert
Four Embarcadero Center
San Francisco, California 94111

I declare under penalty of perjury that the foregoing is true and correct. Executed on March 11, 1987, at Los Angeles, California.

Sharon L. Stewart
(Original signed)